

NHLBI Funds Enhanced Dissemination and Utilization Centers To Improve Cardiovascular Health

The National Heart, Lung, and Blood Institute (NHLBI) has established its first cardiovascular disease (CVD) enhanced dissemination and utilization centers (EDUCs). These centers are part of a nationwide strategy to develop a network of partners to promote cardiovascular health in high-risk populations at the community level. The NHLBI created the EDUCs in response to the Healthy People 2010 (HP 2010) call for action to increase the quality and years of healthy life and eliminate health disparities. The EDUCs are designed specifically to implement health promotion and disease prevention activities to achieve the heart disease and stroke objectives. The NHLBI is supporting six EDUCs initially and plans to expand the number over time.

The NHLBI is developing this national strategy in response to serious challenges to cardiovascular health in the United States. Heart disease and stroke are the first and third leading causes of death for Americans. Trends in CVD-associated risk factors

show a tremendous geographic variation in heart disease and stroke death rates, and certain racial/ethnic minority groups are disproportionately affected. The decline in coronary heart disease (CHD) mortality appears to be slowing, and the decline in stroke mortality appears to be leveling off. Other disturbing trends are less-than-optimal control of high blood pressure (particularly in older Americans), recent increases in teenage smoking, and high levels of physical inactivity coupled with high prevalence of overweight/obesity.

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Letter From the Director

CARDIOVASCULAR HEALTH FOR ALL

The year 2000 saw the launch of several NHLBI-sponsored community-based efforts aimed at achieving cardiovascular health for all Americans. These initiatives are part of NHLBI's new heart-health agenda—whose aim is to meet the cardiovascular health goals in the Federal Government's *Healthy People 2010* report, the blueprint for building a healthier country and ending ethnic and racial disparities in the burden of disease. This issue of HeartMemo highlights a few of these initiatives: the EDUC initiative, which is highlighted in our cover story, the Jackson Heart Study (JHS) (page 17), and the

ASPIRE for Healthy Hearts program (page 18).

These efforts offer help where the need is greatest—communities where people suffer an inordinately high burden of CVD. The EDUCs will operate in rural counties in Arkansas, North Carolina, Virginia, and West Virginia as well as the city of Fort Worth, Texas. The JHS, being conducted in Jackson, Mississippi, will focus on learning why African Americans are more likely to die from CVD than other racial/ethnic groups in the country. Mississippi is the only state where the number of people who die from CVD is increasing. ASPIRE for Healthy Hearts reaches out to Asian

Americans and Pacific Islanders (AAPIs), a group in which CVD continues to be the leading cause of death. ASPIRE will disseminate culturally appropriate heart-health information to AAPI communities in Worcester, Massachusetts; Houston, Texas; and Long Beach, California.

With these and other projects, NHLBI is proving its commitment to its Cardiovascular Health for All initiatives. We look forward to seeing the results of these intensive efforts—lower rates of CVD in communities nationwide—as the century progresses. ■

Claude Lenfant, M.D.
Director, NHLBI

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THE FIRST SIX EDUCS

Delta Health Education Center (DHEC), University of Arkansas for Medical Sciences

This Center will bring a spectrum of health education and services to residents in Lee and St. Francis Counties in eastern Arkansas, a low-income rural area where minority populations, primarily African American, comprise more than half the population. This project will disseminate science-based information to community members through local churches, disseminate information to community health care providers through onsite office programs and interactive video continuing medical education programs, and enlist existing DHEC Community Advisory Boards for guidance in implementing and expanding the project in their respective communities.

HEART (Helping Educators Attack CVD Risk Factors Together)

Operated by St. Mary's Hospital in Huntington, West Virginia, this Center will work to prevent the development of CVD risk factors and to detect and treat these risk factors among students in 45 public elementary schools. The project will target Cabell, Wayne, and Lincoln Counties—rural, medically underserved areas with high rates of poverty and CVD mortality. Along with partners including the West Virginia Department of Education, the West Virginia Bureau for Public Health, and the American Heart Association's West Virginia Chapter, HEART will offer school-based interventions for approximately 8,000 students in grades 3 to 5.

Wake Forest University School of Medicine Project

Based at Wake Forest University School of Medicine in Winston-Salem, North Carolina, this Center will mobilize a collaboration of academic and community-based health care organizations to implement low-cost strategies to promote cardiovascular health. The project targets Robeson and Columbus Counties in southeastern North Carolina that have large Native American and African American populations. Interventions are designed to reach out to health care providers, train community volunteers to disseminate CVD prevention messages, conduct screenings, and work with community organizations.

North Texas Salud Para Su Corazón Outreach Initiative

This Center, operated by the University of North Texas Health Science Center in Fort Worth and the newly created Center for Cross-Cultural and Community Research, will develop state-of-the-art, culturally competent public health education and training activities. This project targets low-income Hispanics living in Fort Worth and the metroplex area of North Texas. The Center will partner with community-based organizations and other agencies to promote culture- and language-appropriate CVD health and wellness activities, including outreach by lay health educators and workers known as "promotoras."

The Healthy Heart Project, West Virginia Health Right, Inc.

This project will track and compare three groups of patients in a free primary care clinic serving a medically underserved low-income population in south central West Virginia. All patients will be screened at entry for CVD, enroll in an exercise and nutrition program, and attend AHA Basic Life Support classes. One group with hypertension will receive intensive interventions in exercise therapy, dietary therapy, weight loss, and smoking cessation; they will also attend behavior change classes and receive a risk factor management plan. Followup will determine which interventions are most effective.

Dan River Regional Cardiovascular Health Initiative Program (DR CHIP)

DR CHIP provides community-based cardiovascular screening and education to low-income populations in southern Virginia that are served by the Danville Regional Medical Center. The program will expand its activities under the coordination of case managers and community outreach workers. Proposed projects include additional screenings using trained volunteers; tracking of patient risk factors over time; followup of patients evaluated in the emergency room chest pain clinic; an expanded Healthy Lifestyles middle school curriculum; phone and online focus groups; and a computer-based continuing medical education model.

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The National High Blood Pressure Education Program

DASH-SODIUM STUDY: SALT REDUCTION BENEFITS ALL

The results of the second DASH (Dietary Approaches to Stop Hypertension) trial—DASH-Sodium—showed dramatic declines in blood pressure for persons on “usual” diets who reduced salt intake as well as declines for persons on the DASH diet. Dietary salt reduction led to blood pressure declines in persons with or without hypertension. The results were published in the January 4 issue of the *New England Journal of Medicine* (2001;344[1]:3–10).

The strong findings were initially presented in May 2000 at the annual meeting of the American Society of Hypertension and were reported rapidly and widely by the national press. Dr. Eva Obarzanek, an NHLBI nutritionist and project officer for the DASH-Sodium trial, announced, “The study shows how important it is to reduce sodium in the diet. The findings suggest that the current recommendation for how much dietary sodium Americans should consume may need to be lowered. By reducing their dietary sodium to 1,500 milligrams a day, all Americans, and especially those at high risk for hypertension, can decrease their chances of developing high blood pressure as they become older.”

The DASH-Sodium trial was a multicentered 14-week feeding study involving 412 participants. The DASH diet is one rich in vegetables, fruits, and low-fat dairy foods, and low in saturated fat, total fat, and cholesterol. In the study, participants who followed the DASH diet

and a lower intake of sodium (1,500 milligrams per day) experienced an average reduction in blood pressure of 8.9 mmHg (systolic). For participants following a usual diet, similar to the average diet of Americans, reducing salt intake from a higher (3,300 milligrams per day) to a lower level produced an average blood pressure reduction of 6.7 mmHg (systolic).

The DASH-Sodium trial reaffirmed the beneficial effects of reducing sodium intake for persons with hypertension. It also demonstrated that persons who do not have high blood pressure can lower their blood pressure significantly by lowering salt intake. About 57 percent

of the study participants were African Americans. “African Americans have more hypertension than other Americans,” said Dr. Frank Sacks, chairman of the DASH-Sodium Steering Committee. “The findings suggest that more than sodium may play a role in African Americans’ blood pressure, and they would benefit from adopting an eating plan similar to that of a lower sodium DASH diet.”

The NHLBI supported DASH-Sodium as well as an earlier DASH study (see *HeartMemo*, winter 1999 and the Web site <http://dash.bwh.harvard.edu>). Work was conducted by investigators from the Brigham and Women’s Hospital

BLOOD PRESSURE WEB SITE UP AND RUNNING

Internet users can now access the new National High Blood Pressure Education Program (NHBPEP) Web pages through the NHLBI Healthy People 2010 Gateway or at the following address:
<http://hp2010.nhlbi.nih.net>

The NHBPEP site contains the following items:

- A description of the NHBPEP
- A roster of the NHBPEP Coordinating Committee
- A Guide to Lowering High Blood Pressure—a special Web page for older Americans
- Slide shows based on *The Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC VI)*
- Additional JNC VI materials
- NHLBI NHBPEP educational materials, which can be ordered online.

Look for these items and more to come.



“The findings suggest that the current recommendation for how much dietary sodium Americans should consume may need to be lowered.”

in Boston, Massachusetts; Duke University Medical Center in Durham, North Carolina; The Johns Hopkins University in Baltimore, Maryland; the Pennington Biomedical Research Center of Louisiana State University, in Baton Rouge; and the Kaiser Permanente Center for Health Research in Portland, Oregon.

The first DASH trial studied the effects on blood pressure of whole dietary patterns and not the effects of single nutrients such as salt. It measured significant drops in blood pressure related to use of the DASH diet. An NHLBI workshop on sodium and blood pressure, held in January 1999, studied a range of salt issues and made recommendations about salt intake. Please see the summer 1999 issue of *HeartMemo* for information about that workshop.

Additional information and recommendations for dietary salt reduction can be found by searching the NHLBI Web site at <http://www.nhlbi.nih.gov>.

HYPERTENSION: FROM GENE TO COMMUNITY

On August 25, 2000, the NHLBI hosted a satellite symposium in conjunction with the Society of Hypertension's 18th Scientific Meeting, "Hypertension: From Gene to Community." The symposium was broadcast live through the NHLBI Web site and can still be viewed as a

Webcast-recorded conference. Webcast is a medium permitting broadcasting of events that can be viewed by personal computer.

NHLBI Director Dr. Claude Lenfant presented a keynote address at the symposium, and nine speakers covered a spectrum of issues in hypertension research and its applications:

- Molecular Genetics of Hypertension and Its Complications
- Hypertension and Associated End Organ Damage
- Peripheral and Central Regulation of Cardiovascular Functions
- The Renin-Angiotensin-Aldosterone System in Hypertension and Target Organ Damage
- Medical Treatment: Evidence from Randomized Trials
- Adherence to Medical Treatment
- Medical Research: Translation to Clinical Practice
- Blood Pressure Levels in and Across Populations
- Psychological and Social Factors in Etiology, Prevention, and Control

To view the Webcast version of the conference, point your browser to <http://www.nhlbi.nih.gov/meetings/ish/video.htm>.

PATIENT ADHERENCE TO MEDICATION TREATMENT FOR HYPERTENSION

Among patients with hypertension, 20 to 63 percent take less than 80 percent of their medication doses, and 21 to 60 percent discontinue their medication. This lack of adherence to medication is a major obstacle to good control of high blood pressure. Patient adherence was the topic of a presentation by Dr. Jacqueline Dunbar-Jacob, director of



research at the University of Pittsburgh School of Nursing, at the symposium "Hypertension: From Gene to Community." (See previous article for details about the symposium.)

Dr. Dunbar-Jacob explained that traditional methods for identifying poor adherers include patient self-report, health professional clinical judgment, and blood pressure control monitoring. However, patients may not be aware of the extent of their missed and extra medication doses, and health care professionals are unlikely to identify adherence problems among their patients.

A new measurement strategy uses the electronic event monitor (EEM), a medication bottle fitted with a microprocessor chip that records the dates and times the patient opens and closes the bottle. One study demonstrated that EEM may be a more accurate measure of adherence than 7-day recall or pill count methods.

Researchers have identified some predictors of poor adherence among hypertensive patients: the busy lifestyles of middle-age people, cognition problems exhibited in very old people, smoking, and misconceptions about hypertension. Other factors associated with poor

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adherence are a complex medication regimen, lack of motivation to follow a regimen, undesirable side effects, and changes in the daily routine.

The development and application of interventions aimed at improving medication adherence require more attention. However, research shows that successful interventions involve counseling and educating patients, monitoring blood pressure, reducing the complexity of medication therapy, and reducing medication side effects.

HYPERTENSION/ DIABETES CLINICAL ADVISORY RELEASED

A clinical advisory issued by the NHBPEP recommends that physicians pursue a more aggressive treatment approach to lower the blood pressure of patients who have both hypertension and diabetes. The clinical advisory, published in the March-April 2000 issue of the *Journal of Clinical Hypertension*, indicates that the coexistence of the two conditions imposes a need for a significantly lower goal blood pressure (130/85 mmHg) than the goal blood pressure for a patient with hypertension who does not have diabetes (140/90 mmHg). Results from several studies show that efforts to lower high blood pressure in patients with type 2 diabetes produce dramatic results. The advisory suggests that weight reduction,

increased physical activity, and moderation of salt and alcohol intake are important therapies, and four classes of drugs are effective first-line therapy for these patients. Most hypertensives will require more than one class of drug to achieve a therapeutic goal of 130/85 mmHg.

This advisory is an update to the *Sixth Report of the Joint National Committee on Prevention, Detection, and Treatment of High Blood Pressure* (1997).

NEW NHBPEP PUBLICATIONS

The following NHBPEP-related publications (and one slide set) are now available:

- **Statement from the NHBPEP: Prevalence of Hypertension.** A statement based on NHANES III data, available as a reprint from the *American Journal of Hypertension* (2000;13[1]:103-4).
- **NHLBI Workshop on Sodium and Blood Pressure: A Critical Review of Current Scientific Evidence.** An article based on a workshop that featured 55 expert speakers. Available as a reprint from *Hypertension* (2000;35[4]:858-63).
- **1999 Clinical Advisory: Treatment of Hypertension and Diabetes.** An article updating the JNC VI, including a treatment algorithm. Available as a reprint from *Journal of Clinical Hypertension* (2000;13[2]:132-3).
- **Importance of Systolic Blood Pressure in Older Americans.** A clinical advisory statement updating the JNC VI. Available as a reprint from *Hypertension* (2000;35[5]:1021-4); also available through the NHLBI Web site.

- **2000 Working Group Report on High Blood Pressure in Pregnancy Slide Show.** A slide show featuring key recommendations of the new report. This can be downloaded from the NHLBI Web site.
- **2000 Working Group Report on High Blood Pressure in Pregnancy.**



The new NHBPEP report updating the 1990 report, for clinicians. Clarifies how to monitor and treat pregnant women who have hypertension prior to pregnancy and those who develop hypertension during gestation. Available as a reprint from *American Journal of Obstetrics and Gynecology* (July 2000;183[1]:S1-S22); also available through the NHLBI Web site and can be ordered through the NHLBI Health Information Center. ■



The National Cholesterol Education Program

CHOLESTEROL COUNTS FOR EVERYONE

Recent studies have reinforced the idea that cholesterol lowering is important for all Americans, regardless of age, sex, and whether or not CHD has been diagnosed. Those who have CHD and those who would like to prevent it both benefit significantly from cholesterol lowering. This message is so salient that “Keep the Beat—Cholesterol Counts for Everyone” was the theme for Cholesterol Month in September 2000.

For Men and Women

Clinical trials addressing cholesterol lowering and CHD in middle-age men with and without CHD have shown that men benefit greatly from cholesterol lowering. Recent clinical trials have shown that women benefit from cholesterol lowering as much as men. The lifetime risk of developing CHD is high for both men and women, and it is important to begin cholesterol lowering as early as possible. One of every two men age 40 and younger, and one of every three women age 40 and younger, will develop CHD sometime in their life.

For Young Adults

It has been shown that atherosclerosis begins during the teen years and early 20s. High cholesterol levels in young adulthood significantly increase the risk for developing CHD later in life. The Framingham Heart Study showed that young

adults with lower cholesterol levels have greater longevity and lower cardiovascular mortality. This has recently been confirmed in a very large pooled study by Stamler et al.* that showed a strong, continuous, independent relationship between serum cholesterol levels in young men and their long-term risk of CHD and CVD death.

This relationship was stronger for the younger men than for middle-age men with similar cholesterol levels. Younger men with high cholesterol levels (≥ 240 mg/dL) also had an increased risk of CHD and CVD death in the short term (i.e., young adulthood through middle age) compared to those with favorable (<200 mg/dL) cholesterol levels. The Stamler study also showed that younger men with favorable chole-

sterol levels did not experience greater non-CVD mortality than those with higher levels. A significant positive correlation between rising cholesterol levels and long-term, all-cause mortality was seen in this study. In the analysis by

Stamler et al., a substantially longer estimated life expectancy was observed in younger men with favorable cholesterol levels.

In light of the evidence from these studies, it is clear that establishing a healthy eating pattern and other positive habits early in life is an important step in keeping CHD risk low. It is important to measure cholesterol levels in young adults so that life habit changes that decrease the lifetime risk for CHD can be initiated early. Waiting until midlife to measure and treat cholesterol can be costly. Approximately one-third of first CHD events are fatal, leaving no second chance. Once CHD has



* Stamler J, Daviglus ML, Garside DB, Dyer AR, Greenland P, Neaton JD. Relationship of baseline serum cholesterol levels in 3 large cohorts of younger men to long-term coronary, cardiovascular, and all-cause mortality and to longevity. *JAMA* 2000;284:311–18.

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“One of every two men age 40 and younger, and one of every three women age 40 and younger, will develop CHD sometime in their life.”

become manifest, there is usually a lot of atherosclerosis to treat. Although cholesterol lowering in those with CHD has been shown to be highly beneficial, once CHD is present it is not possible to eliminate all of the excess risk.

For Older Adults

Among older Americans, cholesterol lowering is beneficial for those with CHD as well as those trying to prevent it. As a group, older Americans (over 65 years) have the highest rate of CHD. Up to three-quarters of older individuals have either obvious or subclinical disease. Even among men who reach 70 years of age without obvious CHD, one out of every three will still develop the disease in his remaining years; among women free of CHD at age 70, one out of every four will go on to have the disease. Furthermore, clinical trials in people with CHD and in primary prevention demonstrated that older participants reduce their CHD risk with cholesterol lowering as much as middle-age ones. Of particular interest is that cholesterol lowering also reduced the occurrence of strokes in older persons. In older adults, life habit changes are the foundation of treatment for primary prevention, and a combination of life habit changes and drug therapy will often be needed in those with CHD.

CHOLESTEROL CLINICAL GUIDELINES TO BE UPDATED

The National Cholesterol Education Program (NCEP) has convened an expert panel (Adult Treatment Panel III, known as ATP III) to update the existing clinical practice guidelines in detecting and treating high blood cholesterol in adults. The ATP III report will provide up-to-date guidance on clinical cholesterol management based on all of the scientific evidence. The panel is working diligently to complete its work by the spring of 2001 when the ATP III report is due to be released at a major media briefing. Release of the new guidelines will be followed by a joint national conference cosponsored by the NHLBI and the National Committee for Quality Assurance (NCQA). The goal of this conference is to speed the adoption and implementation of the guidelines by practitioners and health care organizations. This interactive conference will offer



practitioners the first indepth look at the ATP III guidelines, as well as expert advice and tools to help implement the guidelines in actual practice. (See the box for conference information.) Existing NCEP patient education materials will be updated to reflect the recommendations made in ATP III, and Web-based applications of the new guidelines will be developed. The NCEP is considering several possibilities, including applications for personal digital assistants, a Web-based 10-year CHD risk calculator, and a continuing medical education module for the “Live Healthier, Live Longer” Web page. ■



Mark Your Calendar

NHLBI/NCQA CONFERENCE

WHAT: “Advances in Cholesterol Management: Putting the National Cholesterol Education Program’s New Clinical Guidelines Into Practice” is a joint national conference designed to speed the adoption of the ATP III, the new, updated cholesterol clinical guidelines.

WHEN: June 3–5, 2001

WHERE: Omni Shoreham Hotel, Washington, DC

WHO SHOULD ATTEND?

Physicians, medical directors, nurses, dietitians, pharmacists, health educators.

For more information about the conference, please go to <http://www.nhlbi.nih.gov>. Under highlights, click on NHLBI Healthy People 2010 Gateway, select Cardiovascular, National Education Programs and Initiatives, and National Cholesterol Education Program. ■

The National Heart Attack Alert Program

NEW EDUCATIONAL TOOLS FOR HEART ATTACK RESPONSE

Lori Moore knows how difficult it can be to get people to call for emergency assistance in a timely manner. As director of the Department of Emergency Medical Services for the International Association of Fire Fighters (IAFF), Ms. Moore sees emergency services across the Nation deal with this and other issues almost daily. Ms. Moore, who is the IAFF's representative on the National Heart Attack Alert Program's (NHAAP) Coordinating Committee, is convinced that new materials and strategies to urge people to call for assistance would be welcome.

"They would be a great improvement," she said recently, adding the following caution: "We know the need exists, but local groups must also recognize the need for such materials."

Such materials, or tools, are on the way.

The NHAAP has been developing new tools that are based on the materials used in the Rapid Early Action for Coronary Treatment (REACT) study of delay times in seeking care for heart attack warning signs (see the summer 1999 issue of *HeartMemo*). In the wake

of the REACT research program, the NHAAP is undertaking a new effort to provide education to the general public in addition to its educational efforts with health care providers. Titled the Heart Attack Awareness Campaign, this new program will feature revised and strengthened educational materials with new messages and themes to stimulate people to act quickly in response to potential heart-related emergency situations.

The centerpiece of the Heart Attack Awareness Campaign will be a toolkit containing items for educating community groups and other public groups about heart attack warning signs and necessary action steps. The new materials will continue to address the

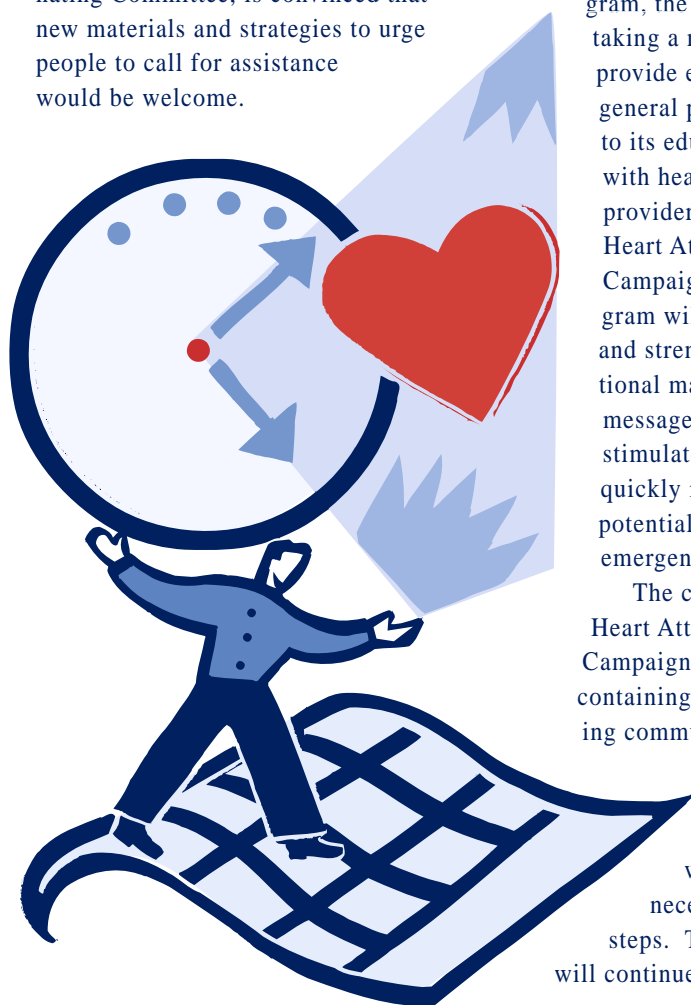
goal of reducing delay time when individuals or someone in their presence experiences symptoms of a heart attack—as they did for the REACT study. The materials will be tailored to address vulnerable population groups and will feature clear presentation of the issues. The goal is to extend the reach of the REACT messages based on lessons learned in REACT.

Materials in the toolkit will include the following:

- "Act in Time"—a powerful videotaped presentation including real people describing attitudes and actions surrounding heart attack symptom recognition and response.
- Core brochure (in English and Spanish)—a clear and comprehensive print presentation of key messages about the main symptoms of a heart attack and appropriate action steps.
- Low-literacy brochure—a pamphlet with key heart attack messages in simpler language (i.e., easy to read).
- Instructor's guide—a curriculum for health care workers and others who can influence persons at risk.
- Brochure for high-risk patients—especially targeting high-risk persons with key messages.
- Wallet card—contains key messages in a format that is easy to access.

These materials are being carefully revised or newly crafted to crystallize key messages that are as science-based as possible, based on lessons learned from REACT.

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“The centerpiece of the Heart Attack Awareness Campaign will be a toolkit containing items for educating community groups and other public groups about heart attack warning signs and necessary action steps.”

The messages target desired results and specific groups. For example, the messages will include clear, concise descriptions of the symptoms of heart attack; they will describe specific differences in symptoms for women and men; they will emphasize making a telephone call (911) to get to the hospital immediately. The primary audience for the program comprises older adults, women, minority groups, and communities at risk. In addition, the campaign targets persons who have been released from emergency departments after having been ruled out for an acute myocardial infarction or discharged from the hospital with a diagnosis of heart disease.

The 4-year REACT study tested community education strategies to reduce patient delay time in seeking care for heart attack symptoms. At the study's completion, advisors to the NHAAP recommended targeted dissemination of the REACT messages, materials, and strategies to persons who are likely to delay seeking treatment.

The materials will be distributed through community partnerships using strategies devised by partnership members. The NHAAP and community partners will place special emphasis on bringing information to African Americans, who are

one of the targeted minority groups. Organizers will develop strategies and networks that are especially appropriate for African American audiences. The Heart Attack Awareness Campaign effort represents yet another in NHLBI's series of programs to translate health research knowledge into usable information through community-based performance projects.

For more information about the Heart Attack Awareness Campaign, check the NHLBI Web site at <http://www.nhlbi.nih.gov>.

STUDY LAUNCHED TO TEST PUBLIC ACCESS DEFIBRILLATION

The NHLBI, in collaboration with the American Heart Association (AHA), has launched a large multicenter study to test the life-saving potential and cost-effectiveness of public access defibrillation (PAD). PAD, which involves placing defibrillators in the community, is considered a promising means of improving emergency treatment for victims of sudden cardiac arrest who collapse in public places. About one-fourth of the 300,000 annual deaths from sudden cardiac arrest occur outside the home—in public areas. Automatic external defibrillators (AEDs) are known to work effectively to help victims of sudden cardiac arrest when the devices are used by highly trained emergency medical services personnel and other trained persons such as airline flight attendants. This study is designed to find out whether placing AEDs in the community where trained volunteers could access them will prevent additional deaths.

The 2½ year study, which began in the summer of 2000, will be conducted in 24 centers throughout the United States and Canada.

Volunteers in participating communities will be trained to recognize cardiac arrest, to access the 911 system, and to perform cardiopulmonary resuscitation. Half of the community units will have AEDs placed in conspicuous locations in community residential apartments, shopping centers, senior centers, gated communities, office buildings, and sports venues. Volunteers in those locations will be trained to use the devices. ■

JOIN THE NHLBI HEALTH INFORMATION NETWORK (HIN)

Imagine regularly receiving the latest information on heart health at no cost—right in your e-mailbox. This—and much more—is now available on the new NHLBI HIN. It's all part of NHLBI's commitment to getting you our latest and best information as quickly and conveniently as possible.

Through the HIN, you receive e-mail messages advising you of available resources in your areas of interest: news about NHLBI publications, notifications of Webcast scientific conferences that you can access through your computer, and news about new NHLBI discoveries.

Joining the HIN is simple. Just visit the NHLBI Healthy People 2010 Gateway at <http://hin.nhlbi.nih.gov>, and click on “Join the Network” at the bottom left. There is no cost.

The National Center on Sleep Disorders Research

SLEEP APNEA AND SNORING LINKED TO HYPERTENSION

Reports from three studies provide new evidence that persons who experience sleep apnea are at an increased risk for hypertension. Although further evidence is needed to fully establish how much the risk of hypertension varies with sleep apnea severity, the results point to a strong association. One of the studies also found a relationship between snoring and hypertension.

Researchers in the large Sleep Heart Health Study (SHHS), which is ongoing, provided preliminary results in the April 12 issue of the *Journal of the American Medical Association* (2000;283[14]: 1829–36). They found that middle-aged and older adults with sleep apnea had a 45 percent greater risk of hypertension than persons who did not experience sleep apnea. The study involved more than 6,000 adults, ages 40 and over, during 1995–98, who were participating in a number of NHLBI cohort studies of cardiovascular and respiratory diseases. The risk of hypertension was found to increase with the severity of the sleep apnea in all participants, regardless of age, sex, race, or weight. Even moderate levels of sleep apnea were associated with increased risk.

NHLBI Director Dr. Claude Lenfant said about the SHHS results, “This is the first study large enough to examine the relationship between sleep apnea and hypertension, independent of other cardiovascular risk factors. Although these results must be verified, they

offer hope that we may be able to reduce cardiovascular mortality in hypertensives by more aggressively diagnosing the apnea.”

About 12 million Americans experience sleep apnea, a condition characterized by brief interruptions in breathing during sleep. The breathing pauses last at least 10 seconds, and there may be 20 to 30 or more pauses per hour. For more information about sleep apnea, go to

the NHLBI Web site at www.nhlbi.nih.gov. Click on National Center on Sleep Disorders Research, and then click on Patient Information, Publications and Materials.

The Wisconsin Sleep Cohort Study (WCS) further established the association between sleep apnea and hypertension. Researchers from the University of Wisconsin Medical School measured the presence of

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PUBLICATIONS ON SLEEP APNEA



Facts About Sleep Apnea

This 4-page brochure discusses sleep apnea, its causes and effects, and how it is diagnosed and treated. Copies can be ordered from the NHLBI Health Information Center. The brochure is available at <http://www.nih.gov/health/public/sleep/sleepapn.htm>.



Sleep Apnea: Is Your Patient At Risk?

This 10-page booklet gives health care providers an overview of sleep apnea, including its consequences and comorbidity, how to identify at-risk patients, diagnosis, treatment options, and management considerations. The booklet can be accessed at <http://www.nhlbi.nih.gov/health/prof/sleep/slapaprsk.htm>.

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“This study dramatically enhances our understanding of the role of sleep apnea in hypertension and provides additional evidence that it may be an independent risk factor for hypertension.”

sleep apnea in 700 participants, then assessed their health, including blood pressure, 4 or 8 years later. They considered the range of 5 to 15 breathing pauses per hour to

represent mild-to-moderate sleep apnea. They reported in the May 11 *New England Journal of Medicine* (2000;342[19]:1378–84) that sleep apnea played a significant and independent role in risk for hypertension. Even persons with minimal sleep apnea had an increased risk of becoming hypertensive compared with those without apnea. Persons with moderate-to-severe sleep apnea were three times as likely to become hypertensive.

“This study dramatically enhances our understanding of the role of sleep apnea in hypertension and provides additional evidence that it may be an independent risk factor for hypertension,” said Dr. Lenfant. “Once we have additional

followup data from the large NHLBI Sleep Heart Health Study, we should be able to make a more reliable determination of the precise role of sleep apnea as a risk factor for cardiovascular disease.”

In a third study, researchers at Penn State’s College of Medicine showed that patients with moderate-to-severe sleep apnea are 7 times more likely to develop hypertension compared with patients with no sleep problems, and that hypertension risk increases with the severity of the sleep problem. The study also showed that people, especially the young, who snore with no other sleep disorder problems have an increased risk of hypertension.

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FEDERAL AGENCIES TEAM UP WITH THE AMERICAN HEART ASSOCIATION TO ADVANCE WAR ON HEART DISEASE AND STROKE

On February 1, 2001, the NHLBI, several other Federal health agencies, and the American Heart Association (AHA) signed a Memorandum of Understanding (MOU) to speed progress toward the heart disease and stroke goals set forth in Healthy People 2010. “This historic MOU will create a working partnership that promises to greatly improve the Nation’s cardiovascular health by the year 2010,” said Surgeon General David Satcher.

In addition to the NHLBI, Federal health agencies signing the MOU include the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), Centers for Disease Control and Prevention; the National Institute of Neurological Disorders and Stroke (NINDS); and two entities within the Office of Public Health and Science (OPHS), Department of Health and Human Services—the Office of Disease Prevention and Health Promotion (ODPHP) and the Office of the Surgeon General. The AHA and its division, the American Stroke Association, also signed the MOU.

AHA President Dr. Rose Marie Robertson called the agreement a “milestone in public and private sector cooperation.” She said, “By coordinating with the Government’s Healthy People 2010 initiative and closely aligning our mutual goals and efforts, we can make a major contribution to the Nation’s cardiovascular health.”

The Federal agencies and the AHA will work to accomplish four cooperative goals for CVD and stroke: prevent the development of risk factors; detect and treat risk factors; achieve early identification and treatment, especially in the diseases’ acute phases; and prevent recurrence and complications.

For more information, visit www.nhlbi.nih.gov.



Photo by Bill Petros

NHLBI Director Dr. Claude Lenfant, Surgeon General Dr. David Satcher, and AHA President Dr. Rose Marie Robertson (sitting, left to right) sign the MOU. Other signers included (left to right) Dr. Darwin Labarth, Associate Director for Cardiovascular Health, NCCDPHP; Dr. Gerald D. Fischbach, Director, NINDS; and Randolph F. Wykoff, Deputy Assistant Secretary for Health, ODPHP, OPHS.



Spotlight on Performance Projects: NHLBI Obesity Education Initiative

HEARTS N' PARKS NATIONAL LAUNCH

The Hearts N' Parks program to teach young people heart-healthy behaviors took a big step forward on July 18, 2000, as national figures and local partners in Arlington, Virginia, launched the program's national phase. The Arlington County Department of Parks, Recreation, and Community Resources, site of the second Hearts N' Parks program, hosted daylong health-promoting events. U.S. Surgeon General Dr. David Satcher and others spoke out for heart health.

NHLBI Director Dr. Claude Lenfant moderated a press conference that included Dr. Satcher, Olympic figure skating champion Michael Weiss, government officials from Arlington, and Alice Conkey, president-elect of the National Recreation and Park Association (NRPA). Representatives of NHLBI's Obesity Education Initiative (OEI) helped coordinate the event. The event was timed to occur during Recreation and Parks Month.

The Arlington Hearts N' Parks program follows last year's pilot program in North Carolina in attempting to translate scientific knowledge about physical activity and heart-healthy eating to communities,

especially those that are at higher risk for cardiovascular disease. Said Dr. Lenfant at this year's press conference, "Hearts N' Parks is a fine example of how we can apply what research has shown to improve the health of all Americans." Dr. Satcher noted, "Hearts N' Parks shows what the Federal Government can accomplish with community and private sector support to improve the health of Americans from all ethnic and socioeconomic backgrounds."

Throughout the morning of the 18th, the Thomas Jefferson Community Center in Arlington was the scene of a host of activities, including the following:

- Healthy cooking demonstration and classes conducted by the Fresh Fields grocery chain
- Tennis demonstration conducted by the U.S. Tennis Association
- Volleyball demonstration led by the George Washington University and Georgetown University women's volleyball coaches
- Jumping-rope demonstration
- Blood pressure screening by Arlington Hospital
- Boxing demonstration by the Arlington Boxing Club
- Gymnasium activities and demonstrations, including cycling, seated exercises, pickle ball, volleyball, and strength training
- Clinic on race-walking
- Sidewalk heart-art activity.

Arlington, Virginia: A Hearts N' Parks Community

The Arlington Parks and Recreation Department was a fitting choice to help initiate the national program. Each year it offers a wide range of services, focusing on youth, seniors, immigrants, and people with special needs. As an example of its youth-focused services, each year the department sends some 3,000 children through a summer camp program.

Arlington's multifaceted summer

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Dr. David Satcher and Dr. Claude Lenfant are greeted by Arlington Wellness Coordinator Jennifer Blau Martin at the Hearts N' Parks event.



Summer camp participants try out the "6-man walker" team-building activity at the Hearts N' Parks event.



(continued from page 13)

“Hearts N’ Parks shows what the Federal Government can accomplish with community and private sector support to improve the health of Americans from all ethnic and socioeconomic backgrounds.”

camps program integrated Hearts N’ Parks themes and programs in the past year, with camp workers engaging in a Hearts N’ Parks training program including how to conduct pre- and posttests to evaluate performance. The department was pleased to adopt the slogan, “Arlington Is a Hearts N’ Parks Community.” Officials created message boards and posted that motto in community centers throughout the region.

Jennifer Blau Martin, Arlington’s Wellness Coordinator, recalled, “I was reading an issue of *HeartMemo* (referring to the summer 1999 issue). I wanted to create a train-the-trainer program, and I saw the article about Hearts N’ Parks.” Ms. Blau Martin contacted OEI coordinator Karen Donato, who suggested that the Arlington program could be the next site for Hearts N’ Parks.

The Arlington community parks program features a spectrum of activities, such as its elementary after-school and playground camp programs, which employ trained supervisors and accommodate “high-risk” children. It also features a “Wellness Lending Library,” from which members can borrow books and other hands-on materials relating to physical activity and health. One focus of the Arlington program includes the Thomas Jefferson Community Center and Barcroft

Sport and Fitness Center, which now are acting as flagship sites for the Hearts N’ Parks program.

An Ongoing Program

The Arlington program was the second Hearts N’ Parks program site, following the North Carolina Hearts N’ Parks activities of summer 1999 (see the spring 2000 issue of *HeartMemo*). The Hearts N’ Parks program aims to help impact the growing trend in overweight and obesity not only by encouraging individuals of all ages to engage in regular physical activity and heart-healthy eating but also by influencing the environment of parks and recreation departments, which many people frequent.

Seventy-five percent of Americans live within a 2-mile walking distance of a public park. Park facilities are widely accessible to individuals from culturally and socioeconomically diverse populations and persons with disabilities. Also, park and recreation professionals are trained to produce programs that are fun and affordable and meet the needs of communities. Hearts N’ Parks is about bringing science-based information on health promotion to the people in ways that are friendly and fun; in so doing, it adds value to what is already happening in communities.

SPOKANE FOCUSES ON BMI

In Spokane, Washington, organizers of a BMI (body mass index) Awareness Campaign have extracted key information from NHLBI’s obesity guidelines, placed the information on laminated cards, and distributed the cards to every physician in the Spokane area. With BMI measurement tables on one side and a treatment algorithm on the other, the

cards are designed to hang on the scales where patients are weighed, to remind health practitioners to evaluate each patient’s BMI (see photo).

The BMI tools are the first product of a community action project of Leadership Spokane Class 1999, an affiliate of the Spokane Area Chamber of Commerce. Each year, a new leadership class selects a project to help develop leadership skills to build a better community. The 30 members of the 1999 class developed the BMI project to improve the health of the people of Spokane by educating health care providers, employers, insurers, and the community about the significance of BMI as a risk indicator.

According to campaign coordinators Kathy Cope, R.N., CNSN, a critical care and certified nutrition support nurse and quality improvement specialist, and Dr. Kelli Pearson, BMI is a key clinical indicator of health status, which identifies persons at risk. Said Ms. Cope, “This project will encourage health practitioners to incorporate BMI measurements in their practices and make other community leaders aware as well. We are developing a system, a plan, and a structure to help institutionalize BMI measurement—to make it happen.”



Dr. Katherine Tuttle, The Heart Institute of Spokane’s director of research, demonstrates the use of the BMI chart classification and treatment algorithm tool (hanging from scale).



Many local organizations have endorsed the BMI campaign, including the Spokane County Medical Society, Spokane Regional Health District, Heart Institute of Spokane, Health Care Community (comprising four hospitals), Spokane Area Chamber of Commerce, Spokane city and county governments, the educational community, and health insurers.

George Schneider, M.D., served as the project's medical advisor and now chairs the city's steering committee that adopted the project. Said Dr. Schneider, "This project is a grassroots community effort that is implementing good public health policy. This is not just conversation; rather, it is action."

With no grant funding to date, the program produced the 2,500 laminated BMI cards using community resources. Sacred Heart Medical Center printed them, the Boeing Company laminated them, and other local companies attached grommets and chains to the cards. Several companies sponsored a booth at a senior wellness program featuring an exhibit on BMI. Persons stopping by the booth took part in a survey to measure their awareness of BMI—thereby providing useful baseline data.

Future plans include distributing information on BMI to worksite wellness programs, convening a group of physicians to write protocols for BMI measurement, and launching a media campaign to spread the word about BMI to targeted audiences. Fourteen members of Leadership Spokane Class 1999 have committed to continuing their work on the campaign.

The campaign's structure will help ensure the project's success. The BMI Steering Committee coordinates implementation of a strategic plan that has identified four goals. Four councils (for health care providers, employers, insurers, and community) have been charged with identifying action steps and developing strategies specific to each group. In addition, a communications and marketing task force promotes BMI awareness, and an evaluation and grants task force works with each council to develop and implement methods and pursue funding.

Karen Donato, coordinator of the NHLBI OEI, stated, "The BMI Awareness Campaign will no doubt lead to lasting awareness of BMI and obesity long after the Leadership Spokane Class 1999 program is over. With its well-thought-out strategic plan, it can serve as a model for how communities can come together to translate research into practice."

BMI TOOLS FOR HEALTH PROFESSIONALS

A reproducible BMI table can be found on page 16. To use this table, find the appropriate height in the left-hand column. Move across to a given weight. The number at the top of the column is the BMI at the height and weight.

The NHLBI Web site includes a BMI table, a BMI calculator, and information on downloading the BMI calculator for use on Palm OS® hand-held devices. These tools can be accessed at http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/profmats.htm.

SURGEON GENERAL'S EFFORT TO DEVELOP NATIONAL ACTION PLAN TO COMBAT OVERWEIGHT AND OBESITY

On January 8, 2001, Surgeon General David Satcher announced a year-long effort to develop a national action plan for reducing the prevalence of overweight and obesity in the United States. This process intends to include "listening sessions," Federal and non-Federal dialogue, periods for public comment, interactive workshops, and the formation of working groups to implement strategies.

The effort's inaugural event was a listening session entitled "Toward a National Action Plan on Overweight and Obesity: The Surgeon General's Initiative," which was held December 4–5, 2000, at the National Institutes of Health (NIH). The NHLBI as well as other NIH Institutes and Offices, the Centers for Disease Control and Prevention, the Health Resources and Services Administration, the Indian Health Service, and the President's Council on Physical Fitness and Sports served on the steering committee for the event. During this event, five panels of experts presented their views on priorities for obesity prevention efforts. A Webcast of the listening session is accessible at <http://videocast.nih.gov> (requires Real Player). ■

Body Mass Index Table																																					
Healthy Weight										Overweight										Obese										Very Obese							
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	
Height (inches)	Body Weight (pounds)																																				
56	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258	
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267	
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276	
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285	
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295	
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304	
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314	
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324	
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334	
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344	
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354	
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365	
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376	
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386	
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397	
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408	
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420	
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431	
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443	



Spotlight on Minority Projects

JACKSON HEART STUDY TAKES TO THE FIELD

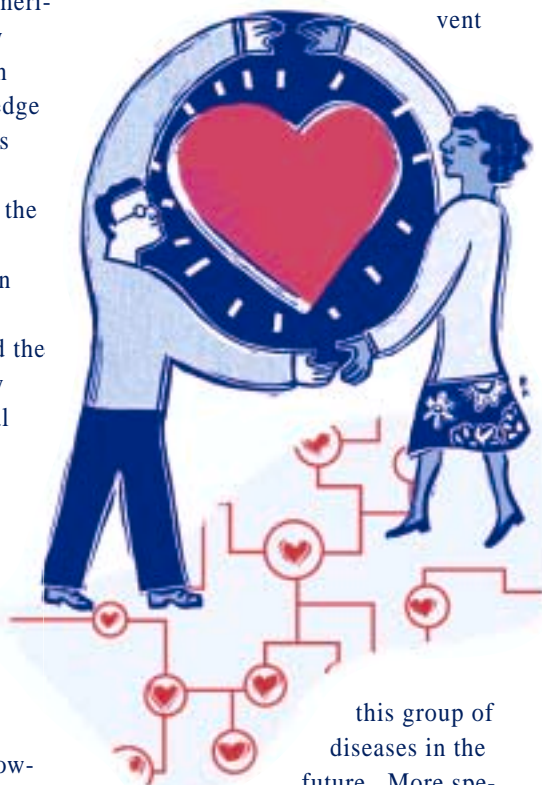
Last fall in Jackson, Mississippi, researchers launched an important new investigation of the cardiovascular health risks of African Americans. The Jackson Heart Study (JHS) is a long-term population study that will build on knowledge gained from the Atherosclerosis Risk in Communities Study (1987–1999) and will focus on the cardiovascular risks of African Americans living in the Jackson metropolitan area. The JHS is cosponsored by the NHLBI and the Office of Research on Minority Health (ORMH) of the National Institutes of Health (NIH).

CVD death rates in Mississippi are the highest in the Nation, especially for African Americans. Although rates of CVD in the United States have been declining in recent years, the decline occurring between 1980 and 1995 was slowest among African Americans. The JHS will help correct for a lack of population-based studies of CVD risks among African Americans. In fact, the JHS will be the largest-ever study of CVD in an African American population.

“This project is unprecedented in its comprehensive and focused look at cardiovascular disease in African Americans, and the data we collect will eventually be used to improve the lives of all people,” said JHS Director Dr. Herman Taylor. “Simultaneous with the scientific endeavor is a large effort to improve the capacity for research among historically black institutions. This will also provide unique and indepth experience for students who we hope

to inspire to careers in epidemiology, public health, or medicine.”

The primary objective of the JHS is to investigate the causes of CVD in African Americans to learn how best to prevent



this group of diseases in the future. More specific objectives include the following:

- Identifying factors that influence the development and worsening of CVD in African Americans, emphasizing manifestations related to high blood pressure, such as enlargement of the left ventricle of the heart, coronary artery disease, heart failure, stroke, and disorders affecting the blood vessels of the kidney.
- Building research capabilities in minority institutions at the undergraduate and graduate levels by developing partnerships between minority and majority institutions and boosting participation of minority investigators in

large-scale epidemiologic studies.

- Attracting minority students to and preparing them for careers in public health and epidemiology.

The JHS will collect data on 6,500 African American men and women between the ages of 35 and 84. Last fall saw the start of an initial examination phase of the study, which will last for 3 years. In a series of questionnaires, participants are being asked for information on lifestyle habits, medical history, medications, and cultural factors. Researchers will perform physical assessments of the participants and measure physiological factors such as cholesterol and glucose.

The study will collect information on conventional CVD risk factors (smoking, overweight, and so forth) as well as additional factors, such as early disease indicators, genetics, sociocultural influences, and socioeconomic status.

The JHS is a partnership of NHLBI, ORMH, and three local institutions: Jackson State University, the University of Mississippi Medical Center, and Tougaloo College. At Jackson State University, a coordinating center has been set up to organize the activities and collect and analyze the data. An exam center at the University of Mississippi is responsible for recruiting and conducting examinations. A unique aspect of the JHS is the Undergraduate Training Center at Tougaloo College, which will offer course work to students in public health and epidemiology and provide practical experience in health research to prepare them for possible careers in these fields.

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By incorporating state-of-the-art methods in a population-based cohort, providing research experience, and building research capabilities at minority institutions, the JHS is uniquely positioned to answer key questions about the excess burden of CVD among African Americans and to address a shortage of minority investigators. In addition to the undergraduate training center, a series of workshop and seminar programs will educate community members about public health and CVD. Along with the inclusion and education of the local investigators, these field-based educational programs will push beyond the scientific goals of the JHS. As researchers uncover key information about cardiovascular risk among African Americans, local minority participants will be trained in CVD epidemiology and will receive key information about CVD risks and heart health. As a result, knowledge gleaned from the JHS will be translated quickly to the local communities.

Cheryl Nelson, a project officer at the NHLBI, expressed the Institute's hopes for the JHS, saying "The hope is that the JHS will enhance the communities' knowledge of CVD, leaving a positive legacy of health for future generations of African Americans. We also hope to counter the effects of other legacies that have made African Americans hesitant to participate in medical research that might lead to treatments for heart disease."

For more information about the JHS, please search the NHLBI Web site at www.nhlbi.nih.gov.

ASPIRE FOR HEALTHY HEARTS GATHERS COMMUNITY SUPPORT

ASPIRE for Healthy Hearts, the NHLBI cardiovascular community outreach program for Asian Americans and Pacific Islanders (AAPIs), has gained support and interest as a result of national dissemination of two reports focusing on the toll of heart disease on AAPIs.

More than 1,000 AAPI community-based organizations, local and state health departments, and community health centers received copies of *Addressing Cardiovascular Health in Asian Americans and Pacific Islanders: A Background Report* and *Asian American and Pacific Islander Workshops Summary Report on Cardiovascular Health*. Since April 2000, more than a dozen community coalitions, community-based organizations, associations, churches, and health centers from different regions of the country have joined the NHLBI Health Information Network (HIN) and expressed their support of ASPIRE for Healthy Hearts and their interest in disseminating heart-health information to their local AAPI communities.

These organizations represent diverse experiences, yet they share a common commitment to providing culturally and linguistically appropriate social and health services to

AAPIs. Through their unique programs, services, and local community networks, they are making significant contributions to improving the quality of life of AAPIs.

The Southeast Asian Health Program in Worcester, Massachusetts, provides health promotion and outreach about chronic disease prevention, and education on accessing and navigating the health care system. The Asian American Health Coalition in Houston, Texas, engages local organizations and leaders in addressing health needs of AAPIs by gathering community support for the establishment of an Asian Health Center. The Cambodian Association of America in Long Beach, California, provides multifaceted social services ranging from employment and skills training to violence prevention. Keiro Services in Los Angeles, California, offers a culturally tailored continuum of care for older Asians.

As the NHLBI continues its efforts to develop heart-health messages, tools, and resources for AAPIs, local organizations will play a key role in sharing life-saving heart-health information to AAPI families and communities. ■

For information on how to become an ASPIRE for Healthy Hearts supporter, call Matilde Alvarado at 301-496-4236 or e-mail her at alvaradm@nhlbi.nih.gov.



Mark Your Calendar

2002 CVH CONFERENCE

Make plans! On April 11–13, 2002, the NHLBI will host the National Cardiovascular Health Conference

in Washington, DC. It will build on the success of the 1998 national conference and focus on Healthy People 2010. Watch the NHLBI Web site for developing details. ■



Spotlight on Women

SEMINAR EXAMINES DIABETES AS A RISK FACTOR FOR CVD IN WOMEN

"Women and Diabetes" was the title of a recent seminar that focused on the adverse effect of diabetes on women's health in general and, in particular, on their risk of CVD. The seminar was part of the 2000 seminar series sponsored by the Women's Health Seminar Committee of the National Institutes of Health's Office of Research on Women's Health (ORWH).

Dr. Barbara Howard, president of MedStar Research Institute, discussed type 2 diabetes as a significant independent risk factor for CVD, especially among women, and as a serious CVD comorbid condition that calls for more aggressive treatment of both diabetes and CVD. Women die from diabetes-related heart disease at a much greater rate than their male counterparts—across all ethnic groups and ages.

Type 2 diabetes most often develops in women and men who are overweight or obese, physically inactive, older than age 35, and have a family history of the disease. Diabetes that develops during pregnancy (gestational diabetes) typically goes away after women give birth, but these women often develop type 2 diabetes later in life. In addition, women who have one or more babies who weigh more than 9 pounds at birth are at higher risk of developing type 2 diabetes.

While the national increase in type 2 diabetes in the general population may be due, in part, to the aging population, Dr. Howard reported that diabetes rates also are

increasing dramatically in younger people. The increase may be due to the growing number of Americans of all ages who are overweight or obese, according to Dr.

James Hill, University of Colorado Health Sciences Center.

Moreover, the disease begins developing as much as 12 years before it is diagnosed, and so it can begin causing severe damage to blood vessels long before treatment is begun.

Dr. Howard reported that women with diabetes have higher blood pressure than do men with diabetes, which compounds their heart disease risk. In addition, across all age groups, African American women and white women with diabetes have a greater decrease in HDL (the "good" cholesterol) and worse triglyceride levels than their male counterparts with diabetes. American Indian women with diabetes have a 4.3-fold greater risk of heart disease than their male counterparts, and virtually all CVD in Native Americans occurs in women with diabetes.

The NHLBI and the National Institute on Diabetes and Digestive and Kidney Diseases are supporting two large clinical trials designed to identify ways to reduce

cardiovascular complications of type 2 diabetes. The Prevention of Cardiovascular Disease in Diabetes trial is studying the benefits of intensified control of high blood

sugar, cholesterol, and hypertension in persons who have dia-

betes but not CVD.

The Study of Health Outcomes of Weight Loss trial will focus

on the benefits of weight

loss in obese individuals with diabetes as

a means to manage their diabetes as well as to prevent development of heart disease. These two major studies will provide important information about the effectiveness of several new medications and treatment regimens to reduce the complications of diabetes.

ROLE OF HORMONE REPLACEMENT THERAPY AND LIFESTYLE CHANGES IN CORONARY HEART DISEASE IN WOMEN

Two NHLBI-funded studies published in the August 24, 2000, issue of *The New England Journal of Medicine* indicate the need for further clinical trials to determine how best to prevent CHD in women.

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Results of the "Effects of Estrogen Replacement on the Progress of Coronary-Artery Atherosclerosis" study indicate that postmenopausal hormone replacement therapy (HRT) is not beneficial in the short term to either prevent the progression of or induce the regression of atherosclerosis in women with established CHD. The 3-year study randomly assigned 309 women with diagnosed coronary artery disease to either placebo, estrogen, or estrogen plus progesterone. While both the single and combination hormone therapies had an impact on atherosclerosis risk factors, neither affected the progression of coronary atherosclerosis. The study's limitations include its short term and the fact that the women studied were approximately 65 years old and initiated the therapy an average of 23 years after menopause. More studies of postmenopausal women are needed to determine whether the study results apply to women of all ages and to HRT started soon after menopause.

The second study found that positive lifestyle patterns resulted in significant declines in the incidence of CHD in women who had no previously diagnosed CVD. The study evaluated the effects of risk factors on the incidence of CHD in nearly 85,000 women ages 34 to 59 who were participating in the Nurses' Health Study. Over a 14-year period, the incidence of CHD declined by 31 percent after adjustment for age. Smoking declined 41 percent; the rate of HRT use among postmenopausal women increased by 175 percent; and diet improved considerably. However, during the same period, the proportion of women who were overweight increased by 38 percent, which may explain an 8 percent rise in the incidence of CHD. ■

WORKSHOP ON WOMEN'S HEART HEALTH

"Women's Heart Health: Developing a National Health Education Action Plan," an NHLBI workshop held on March 26–27 in Bethesda, Maryland, is the first step in developing an ambitious new health education effort aimed at reducing death and disability from CVD in women. The workshop brought together about 60 key researchers, public health leaders, women's and minority health advocates, health communicators, health care delivery experts, and others who have a stake in improving women's cardiovascular health. Their goal was to develop a science-based blueprint for a comprehensive health education effort for patients, health professionals, and the public.

The workshop's aim was to develop goals and objectives for the women's heart health education effort; identify the primary target audiences and their cardiovascular health knowledge, skills, and behavior; identify the needs of minority target audiences who are at greater risk for CVD; and develop programmatic recommendations as well as methods for implementation and dissemination.

To view the workshop Webcast on the NHLBI Web site, <http://hin.nhlbi.nih.gov>, click on Cardiovascular and then on Distance Learning Opportunities.



HeartScience

NEW 10-YEAR STUDY ON EARLY DETECTION OF HEART DISEASE

The NHLBI has launched a 10-year, multicenter study to find new ways to detect heart disease early, before symptoms appear. The \$68 million Multi-Ethnic Study of Atherosclerosis (MESA) will involve six centers, which will recruit approximately 6,500 participants ages 45 to 84—none of whom will have known heart disease at the time of their enrollment in the study. Study participants will include equal numbers of men and women, with racial backgrounds representing 40 percent white, 30 percent African American, 20 percent

Hispanic, and 10 percent Asian. Researchers will collect information on standard risk factors, as well as sociodemographic, lifestyle, and psychosocial factors and newly emerging factors such as calcium deposits in the coronary artery. Each participant will undergo four examinations over the course of the study, using tests including computed tomography, cardiac magnetic resonance imaging, ultrasound, ankle-brachial blood pressure index, electrocardiograms, and measurement of pulse waves at the artery. Blood samples will be used to measure new risk factors such as indicators of inflammation and genetic markers. ■



New at the NHLBI Health Information Center



The Practical Guide: Identification, Evaluation, and Treatment of Overweight and Obesity in Adults (2000)

(#4084, \$5 each; 25 copies, \$106.25; 100 copies, \$400). Based on *The Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report* (published in 1998), The Practical Guide provides health care practitioners with the tools they need to effectively manage overweight and obesity in adult patients. The Guide was developed cooperatively by the NHLBI and the North American Association for the Study of Obesity.



Asian American and Pacific Islander Workshops Summary Report on Cardiovascular Health (#3793, \$3.00). This report includes summaries of and recommendations from the 1998 Native Hawaiian Heart Health Initiative Workshop and the 1999 National AAPI Cardiovascular Strategy Workshop. The report provides an overview of the cardiovascular health profile of these groups, background on research and programs, and community recommendations on how to improve heart health at the local, state, and Federal levels. The report also includes a bibliography and appendixes on gathering community input through key informant interviews and ethnographic interviews.



Facts About Mitral-Valve Prolapse (#865, single copy free; 25 copies, \$12.50; 100 copies, \$40.00).

This 1-page fact sheet (front and back) provides information for patients on mitral-valve prolapse (MVP), a condition that affects about 2 percent of the adult population and is usually harmless. It discusses what causes MVP, how it is diagnosed and treated, how complications can be prevented, and its clinical significance. ■

(“Cover Story” continued from page 3)

“Putting today’s best prevention strategies into practice in high-risk communities will save more lives and give more Americans a better quality of life.”

It is hoped that the EDUCs will implement innovative strategies at the local level that will contribute significantly to the reversal of these trends by 2010.

The NHLBI is also concerned that lifesaving information is being lost in the information glut of the 21st century and thus is taking aggressive steps to enhance dissemination and outreach activities to address this disturbing trend. Several sources of data in the United States point to the need for enhanced dissemination of science-based information. The EDUCs will also serve as key partners to stimulate and promote increased use of proven therapies that can potentially save many lives. For example, they will create interventions to reach physicians in their practice setting, which will enhance physicians’ utilization of clinical guidelines, improve patient-provider interaction, and improve patient outcomes.

“Clearly, great numbers of Americans are not enjoying the improvements in health that application of existing information has the potential to offer,” says Dr. Gregory Morosco, director of the NHLBI’s Office of Prevention, Education, and Control (OPEC). “Putting today’s best

prevention strategies into practice in high-risk communities will save more lives and give more Americans a better quality of life. A greater focus on enhancing the dissemination of science-based information and utilization and mobilization of partnerships in local community settings will be critical elements that must be implemented in order to successfully achieve the U.S. HP 2010 goals in the 21st century.”

Characteristics of the EDUCs

Each EDUC had to demonstrate that it had the capacity to develop, implement, and evaluate multifaceted strategies; furthermore, they had to show that they had experience working with other partners within high-risk communities. In addition, the EDUCs had to be located within a high-risk health service area—one that serves at least 100,000 people and has a high CHD or stroke mortality rate. The EDUCs are one element of a larger heart-health agenda that the NHLBI has launched as part of its efforts to meet the cardiovascular health goals and objectives in the Federal Government’s *Healthy People 2010* report. “The NHLBI intends for the EDUCs to become the foundation of a nationwide network of performance partners addressing CVD in high-risk populations,” says NHLBI Director Dr. Claude Lenfant. “These first six centers will serve as models for what can be achieved through a targeted approach, and we hope that many more such centers will be established as the new century progresses.” ■

(“Sleep Apnea” continued from page 12)

People who snore and have mild sleep apnea were 2½ times as likely to be affected by hypertension as those with no sleep disordered breathing. Those who snore without evidence of sleep apnea were 1½ times more likely to have hypertension. The 5-year study, involving 1,741 people ages 20 to 100, was the largest sleep laboratory study of its kind. This study was reported in the August 14 issue of the journal *Archives of Internal Medicine* (2000;160[15]:2289–95). “This study extends earlier findings with evidence that even minimal sleep disordered breathing may be a risk factor for hypertension,” said Dr. Lenfant.

Unlike earlier studies, all three studies weeded out other factors that might play a role in developing hypertension, including age, gender, and weight. All three studies were funded by the NHLBI. ■



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